

Botany report for

Strawberry Wildfire Resilience Project

(Short form Biological Evaluation/ Biological Assessment/ Noxious Weed Risk Assessment)

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My assessments, below, are based on Feather River RD GIS layers and other available records for survey areas, occurrences of species of conservation concern (rare plants: USFWS Listed Threatened or Endangered, FS Sensitive, and PNF Watch List), and infestations of non-native invasive plants (NNIP).

PROJECT DETERMINATION SUMMARY

Survey summary: COMPLETE.

Species of conservation concern (rare plants) summary:

- *There are no concerns for species of conservation concern with implementation of the Management Requirements during project implementation (see Appendix A).*

Non-native invasive plants (NNIP) summary:

- *Concerns about NNIP in the project area are being addressed as part of project design with an integrated pest management program that meets the purpose and need for the project (see Appendix A).*

PROJECT DESCRIPTION

PROPOSED PROJECT ACTION AND DESCRIPTION.

Strawberry Valley, CA, is one of a number of small, rural communities surrounded by the Plumas National Forest. The area is classified as wildland-urban interface (WUI), and contains stands in an overstocked condition and having experienced an elevated level of tree mortality caused by bark beetles during the recent drought. These conditions create elevated wildfire risk.

The Strawberry Wildfire Resilience Project, PALS #55801 - The project area is located nearby the communities of Strawberry Valley and Clipper Mills, CA and Sly Creek Reservoir and adjacent recreation facilities, on and near the La Porte Quincy Highway. The units occur at elevations ranging between 3,500 and 4,800 feet. Most of the area is comprised of Sierra mixed conifer consisting of Douglas-fir, ponderosa pine, sugar pine, incense cedar, California black oak, Pacific madrone, and tanoak. The project proposes activities on approximately 445 acres within the project area (see Figure 1).

The proposal is to reduce hazardous fuels and reduce the risk of insect and disease-caused tree mortality through mechanical and hand thinning, mastication of brush, grapple and hand piling, targeted

grazing, and prescribed and pile burning. Thinning will emphasize variable densities within stands, California black oak release, and removing smaller diameter trees from the understory.

- Re-entry may occur up to 3 years to remove any additional danger trees for additional volume.
- Reforestation and maintenance activities include: site preparation which can include biomassing, hand-cutting, hand- or grapple-piling and pile burning; planting; grubbing after planting; and a variety of maintenance activities including mastication, hand-cut and hand- or grapple-pile, pile burning, prescribed fire, and targeted grazing. Maintenance could be needed for a period of 40 or more years.
- To protect water quality, roads will be modified by adding drainage structures such as critical dips, rolling dips, dips with leadoff ditches, and ditch relief culverts, and by out-sloping certain segments of road. Other activities include rocking inside ditches and rocking segments of road.
- Mechanical (cutting, pulling) treatments to control or eradicate non-native invasive plants (NNIP) and to prevent spread into new areas.

SURVEYS

The project area has been completely surveyed for plant species of conservation concern (USFWS T&E, FS Sensitive, and PNF Watch List) and non-native invasive plants (NNIP) by Forest Service botanists over several years:

- 051103_2004_020 – in 2004 for Slapjack DFPZ Project (Units 4)
- 051103_2005_026 – in 2005 for Strawberry Etals Group Select Project (Units 7, 9, 10, 11, 12)
- 051103_2005_027 – in 2005 for Strawberry Etals Group Select Project (Units 8, 9)
- 051103_2005_033 – in 2005 for Strawberry Etals Group Select Project (Unit 5, 6)
- 051103_2012_007 – in 2012 for Union Hill- Diamond Springs Hill Project (Units 12)
- 051103_2016_016 – in 2016 for Strawberry Fire Station Salvage Project (Unit 2)
- 051103_2017_013 – in 2017 for Strawberry CPFR (Unit 4)
- 051103_2017_014 – in 2017 for Strawberry CPFR (Unit 3)
- 051103_2018_009 – in 2018 for Strawberry CPFR (Unit 4)
- 051103_2018_010 – in 2018 for Strawberry CPFR (Unit 2)
- 051103_2020_004 – in 2020 for this project (Units 2, 3)

Survey summary: COMPLETE.

SPECIES OF CONSERVATION CONCERN (RARE PLANTS)

No species of USFWS Listed plants, Forest Service Sensitive plants, or Plumas NF Watch List plants are known from within the project area.

Species of conservation concern (rare plants) summary:

- *There are no concerns for species of conservation concern (FS Sensitive or PNF Watch List species), as no known occurrences exist within the project area.*

NON-NATIVE INVASIVE PLANTS (NNIP)

Three non-native invasive plant species (NNIP) are known from within the project area. Information about these species is summarized in Table 1 and in the following paragraphs. See Appendix A, Management Requirements, for measures to prevent the spread of these species, and to pull them when time and funding allows.

Table 1. Non-native invasive plants located within or near to the Strawberry WRP Project area. C.A. = botany Controlled Area.

Species	Management category	Acres	Comments about distribution within project and implications
Scotch broom (<i>Cytisus scoparius</i>)	CDFA C-rated ^{1,2}	0.14 acre	One site in unit 2 - avoided via C.A.s
black locust (<i>Robinia pseudoacacia</i>)	Cal-IPC ²	0.05 acre	One site in unit 2 - not managed
greater periwinkle (<i>Vinca major</i>)	Cal-IPC ²	0.09 acre	One site in unit 2 - not managed

¹The California Department of Food and Agriculture's noxious weed list (CDFA 2020a) divides noxious weeds into categories A, B, and C (CDFA 2020b): A-listed weeds are those for which eradication or containment is required at the state or county level; B-listed weeds are those require eradication or containment by the state only when found in a nursery, otherwise at the discretion of the County Agricultural Commissioner; and C-listed weeds are managed at the discretion of the County Agricultural Commissioner.

²The Cal-IPC Inventory (Cal-IPC 2020a) tracks and categorizes invasive plants that are current threats in California, as well as watch list plants that have a high risk of becoming invasive. There are no required management measures for these species, but they are tracked in order to assess potential threat and prevent further spread.

- **Scotch broom (*Cytisus scoparius*).**
 - Scotch broom is a perennial shrub in the pea family. It generally grows in sunny sites with dry sandy soil, and spread rapidly through pastures, borders of forests, and roadsides. Scotch broom can be found from the coast to the foothills of the Sierra Nevada and the Cascade Range. These weeds crowd out native species, have a seedbank that can remain dormant for up to 80 years, diminish habitat for grazing animals, and increase risk for wildland fires (Cal-IPC 2020b). Scotch broom is a troublesome weed that is widely distributed in the lower elevations on the western side of the Plumas NF, such as the project area, and on surrounding private lands. There is one small site of approximately 0.14 acre within the project area that can be avoided via Controlled Areas. Measures to control this species within the project area have already begun and will continue as part of project implementation, and inadvertent spread by project activities will be prevented as part of design features of the Strawberry WRP Project (see Table 1 and Appendix A, Management Requirements Table).
- **black locust (*Robinia pseudoacacia*) and greater periwinkle (*Vinca major*).**
 - The two Cal-IPC rated noxious weed species found within the project area are not managed by Plumas NF, but should be avoided during project implementation to prevent spreading them.

Black locust (*Robinia pseudoacacia*) and greater periwinkle (*Vinca major*) are known to exist as small (less than 0.10 acre) occurrences within the project area and across the Plumas NF. However, these two species are not managed on the Plumas NF due to their common occurrence and their generally successful control within the state. These two species are mapped on the Plumas NF but in general there is no attempt to control them.

Non-native invasive plants (NNIP) summary:

- *Concerns about NNIP in the project area are being addressed as part of project design with an integrated pest management program that meets the purpose and need for the project (see Appendix A).*

REFERENCES

Cal-IPC. 2020a. California Invasive Plant Council; The Cal-IPC Inventory. www.cal-ipc.org/plants/inventory/. Last accessed 11/08/2020.

Cal-IPC. 2020b. California Invasive Plant Council; Plants A-Z. www.cal-ipc.org/plants/profile/cytisus-scoparius-profile/. Last accessed 11/08/2020.

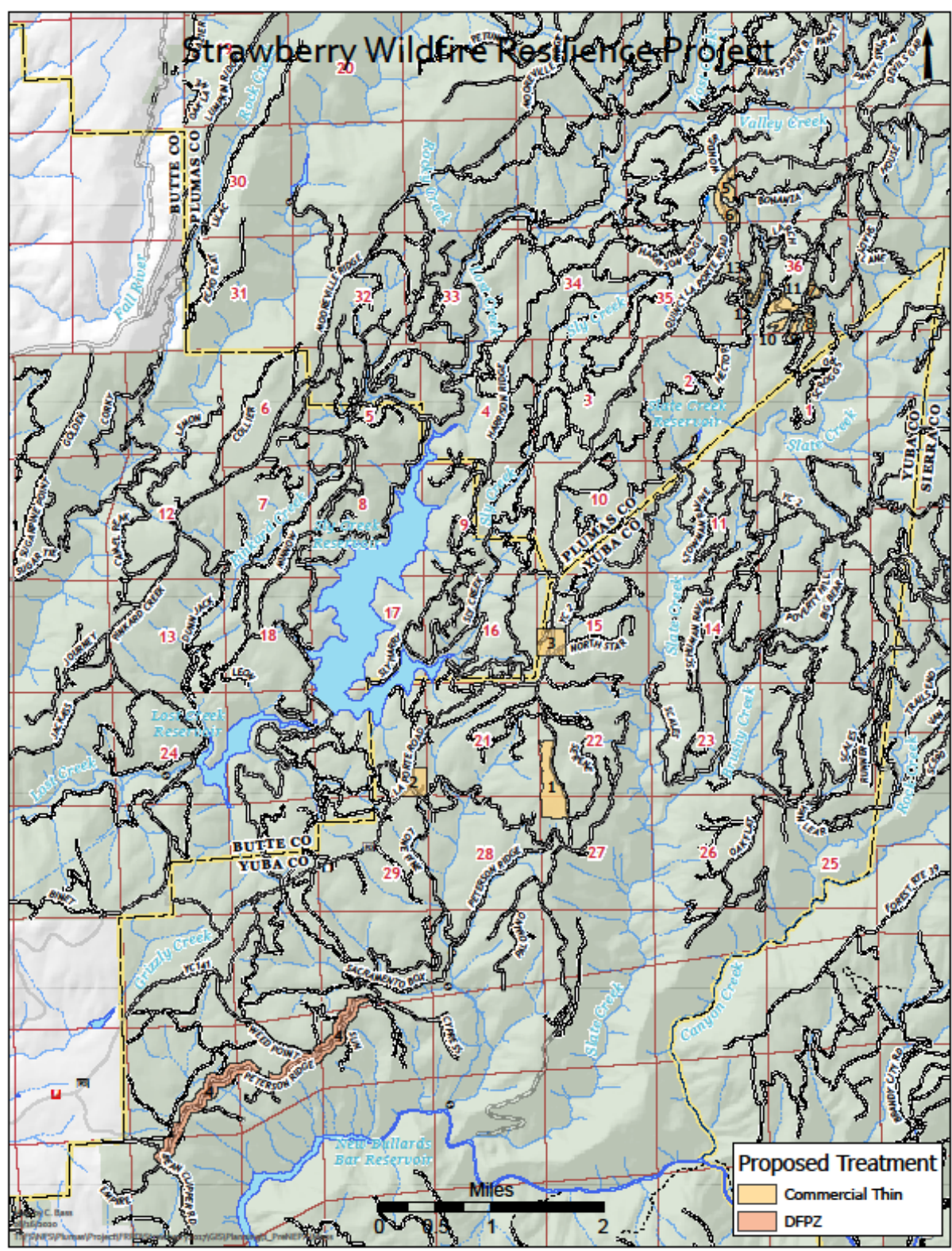
CDFA. 2020a. Encycloweedia: Data Sheets. www.cdfa.ca.gov/plant/ipc/encycloweedia/weedinfo/winfo_table-sciname.html. State of California, Department of Food and Agriculture, Division of Plant Health & Pest Prevention Services. Last accessed 11/08/2020.

CDFA. 2020b. Encycloweedia: Weed Ratings. www.cdfa.ca.gov/plant/ipc/encycloweedia/winfo_weedratings.html. State of California, Department of Food and Agriculture, Division of Plant Health & Pest Prevention Services. Last accessed 11/08/2020.

USDA Forest Service. 2013. 2013 Sensitive Plant List. Pacific Southwest Region, Region 5. Letter from Regional Forester Randy Moore. File Code: 2670. Dated July 3, 2013.

USDA Forest Service. 2014. Plumas National Forest Interim Management Prescriptions for Threatened, Endangered, Sensitive and Special Interest [Watch List] Plants. Memo from Earl W. Ford, Forest Supervisor, to District Rangers. Dated October 16, 2014.

Figure 1. Strawberry Wildfire Resilience Project activity units.



APPENDIX A
BOTANY Management Requirements for the Strawberry Wildfire Resilience Project.

Potential Resource(s) Affected	Management Requirements Designed to Reduce or Prevent Adverse Effects	Responsible Person(s)
Rare Plants - Conservation	None Needed.	Botanist
Non-native Invasive Plants (NNIP) - Prevention	Ensure that all plant material and fill material used for erosion control and/or road maintenance is free of NNIP, including straw, mulch, gravel, and rock (<i>certified weed-free</i>).	Botanist, Implementation Team, and Contract Administrator
Non-native Invasive Plants (NNIP) - Prevention	Clean all off-road equipment entering the project area if it may be coming from areas infested with nonnative invasive plants (NNIP).	Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators
Non-native Invasive Plants (NNIP) - Prevention	<p>To the greatest extent feasible keep all equipment, vehicles, and supplies out of areas of known NNIP infestations, including any NNIP infestations along access routes and new infestations that may be discovered during project implementation. NNIP infestations may sometimes be flagged with bright orange “noxious weed” flagging.</p> <ul style="list-style-type: none"> Any equipment, vehicles, and supplies that do come in contact with NNIP infestations (plants or the ground close to them) during project implementation should be thoroughly cleaned of dirt, mud, and plant debris before entering any un-infested project area. Hand cutting of broom plants and placement of burn piles on top of NNIP infestations is encouraged. New infestations should be mapped and reported to the District Botanist. 	Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators
Non-native Invasive Plants (NNIP) - Prevention	<p>Members of the project implementation teams (layout crew, contract administrator, etc.) should watch for and be able to recognize NNIP.</p> <ul style="list-style-type: none"> As time allows, pull some or all of NNIP encountered during project activities (avoiding Archaeology controlled areas). New infestations should be mapped and reported to the District Botanist, and flagged and avoided. 	Botanist, Project Implementation Teams, Contract Administrators
Non-native Invasive Plants (NNIP) - Prevention	<p>Monitor areas of project related ground disturbance (e.g. skid trails, temp roads, landings, trails, etc.) for NNIP for up to 10 years following implementation of each project activity.</p> <ul style="list-style-type: none"> As funding becomes available, new and old infestations of NNIP should be pulled or otherwise treated. New infestations should be mapped and reported to the District Botanist. 	Botanist and Implementation Team